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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/751,623	01/05/2004	Wolfgang Ebenbeck	CH-7988/LeA 36,377	2430
34947	7590	09/28/2007	EXAMINER	
LANXESS CORPORATION			ANDERSON, REBECCA L	
111 RIDC PARK WEST DRIVE			ART UNIT	
PITTSBURGH, PA 15275-1112			PAPER NUMBER	
			1626	
			MAIL DATE	
			DELIVERY MODE	
			09/28/2007	
			PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/751,623	Applicant(s) EBENBECK ET AL.	
	Examiner Rebecca L. Anderson	Art Unit 1626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 August 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,4 and 6-23 is/are pending in the application.
- 4a) Of the above claim(s) 6-22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3, 4 and 23 is/are rejected.
- 7) ☒ Claim(s) 1,3,4 and 23 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 1, 3, 4 and 6-23 are currently pending in the instant application. Claims 6-22 are withdrawn from consideration as being for non-elected subject matter. Claims 1, 3, 4 and 23 are objected and rejected.

Response to Amendment

Applicants' amendment and arguments filed 1 August 2007 have been entered into the application.

While applicant states that the instant claims have been amended to overcome the objection to the claims, it is noted that the claims still include non-elected subject matter. Specifically, the claims still include the subject matter wherein R1 is [(C2-12-alkylene)-O]_n(C1-C12-alkyl)] where n= 1 to 5. The objection to the claims is therefore maintained.

Applicants' amendment has overcome the 35 USC 102(b) rejection of the claims. Additionally, as US Patent No. 2,859,245 discloses that the compound of example XVI had poor chemical stability and tended to decompose on heating (column 6, lines 19-20), the '245 patent would not render the instant claims obvious as there would be no motivation to modify the prior art compound.

In regards to the 35 USC 103(a) rejection applicant argues that the compound of the '062 reference is specifically excluded from inclusion of the scope of the pending claims. As the compound of the '062 reference is excluded from the scope of the pending claims, the examiner has not rejected the claims as being anticipated, however, the '062 disclosure still renders the instant claims obvious as the '062 reference

provides a compound which differs only by a hydrogen versus a methyl or in the homologous series.

Applicants' argue that the '062 patent provides no motivation or suggestion to modify the compounds or that such modification would provide any chance of success. This argument is not persuasive as the examiner has not merely shown that a modification can be made but has provided a reason to make the suggested modification as can be seen in the previous office action wherein it was stated that the instant claimed compounds would have been obvious because one skilled in the art would have been motivated to prepare homologs of the compounds taught in the reference with the expectation of obtaining compounds which could be used as treating agents. Support for this motivation is found, for example, in *In re Henze*, 85 USPQ 261 (1950) wherein it is shown that to those skilled in chemical art, one homologue is not such an advance over adjacent members of a series as requires invention because chemists knowing properties of one member of series would in general know what to expect in adjacent members. Therefore, the examiner has provided some reason to modify the prior art compounds, specifically, the expectation of preparing homologous compounds to the prior art, which would also be useful as treating agents. The instantly claimed invention is obvious as there is a high level of expectation that the preparation of homologous compounds to the prior art would prepare additional compounds with the same use. Additionally, the claims would have been obvious because the substitution of one known element for another would have yielded predictable results to one of ordinary skill in the art at the time of the invention. Also note that KSR forecloses the

argument that a specific teaching, suggestion, or motivation is required to support a finding of obviousness, KSR, 82 USPQ2d at 1396.

Therefore, the 35 USC 103(a) rejection is maintained.

Maintained Claim Objections

Claims 1, 3, 4 and 23 are objected to as containing non-elected subject matter. Claims 1, 3, 4 and 23 presented drawn solely to the elected invention identified as **the elected invention for search and examination** would overcome this objection.

The elected invention for search and examination is:

the compounds of formula (I) wherein:

R1 is hydrogen or C1-C12 alkyl;

R2 and **R3** are each independently C1-C12 alkyl;

excluding 1,1-difluoromethyl-N,N-dimethylamine, 1,1-difluoromethyl-N,N-diethylamine, 1,1-difluoromethyl-N,N-diisopropylamine and 1,1-difluoro-N,N-2-trimethyl-1-propanamine.

Maintained Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1, 3, 4 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 3,213,062. It is noted that claim 23 only requires the compound of the formula (I) to be present in the agent and the claim is therefore included in the 35 USC 103(a) rejection.

Determining the scope and contents of the prior art

US Patent No. 3,213,062 discloses the preparation of dimethyl-difluoromethamine in Example XVIII, columns 11 and 12. While dimethyl-difluoromethylamine is excluded from the claimed invention, US Patent No. 3,213,062 also discloses that dimethyldifluoromethylamine is valuable as a treating agent for cellulose products, see column 14.

Ascertaining the differences between the prior art and the claims at issue

The difference between the prior art and the claims at issue is that the prior art of US Patent No. 3,213,062 prepares a specific compound that is excluded from the claimed invention.

Resolving the level or ordinary skill in the pertinent art

However, minus a showing of unobvious results, it would have been obvious to one of ordinary skill at the time of the invention to prepare compounds of the formula (I) wherein R1 is hydrogen or C2-C12alkyl and R2 and R3 are each C1-C12 alkyl when faced with the prior art of US Patent No. 3,213,062 which discloses dimethyldifluoromethamine and also discloses that dimethyldifluoromethamine is useful as a treating agent. The motivation to prepare compounds of the formula (I) as instantly claimed would be to prepare additional treating agents for cellulose products. To those skilled in chemical art, one homologue is not such an advance over adjacent member of series as requires invention because chemists knowing properties of one member of series would in general know what to expect in adjacent members. In re Henze, 85 USPQ 261 (1950). The instant claimed compounds would have been obvious because one skilled in the art would have been motivated to prepare homologs of the compounds taught in the reference with the expectation of obtaining compounds which could be used as treating agents. Therefore, the instant claimed compounds would have been suggested to one skilled in the art. It is well established that the substitution of methyl for hydrogen on a known compound is not a patentable modification absent unexpected or unobvious results. In re Wood, 199 U.S.P.Q. 137 (C.C.P.A. 1978) and In re Lohr, 137 U.S.P.Q. 548, 549 (C.C.P.A. 1963). The motivation to make the claimed

compounds derives from the expectation that structurally similar compounds would possess similar activity (i.e., treating agents).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Rebecca L. Anderson whose telephone number is (571) 272-0696. Mrs. Anderson can normally be reached Monday through Friday from 6:00am until 2:30pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Mr. Joseph K. McKane, can be reached at (571) 272-0699.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1626

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*/Rebecca Anderson/
Primary Examiner, AU 1626*

26 September 2007

Rebecca Anderson
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